

**Review and Organization of Existing Environmental Data for Upper Animas River  
Watershed**

**Technical Assistance EPA 8 IA DW 9695402201  
Work Authorization Document Statement of Work  
July 30, 2014**

**Section 1      Background**

**1.1      Site Description**

The Upper Animas River Watershed has a history of mining activities that have impacted the water quality of the Animas River.

**1.2      Basis for Concern**

The EPA is concerned with impacts from mining activities to water quality in the Upper Animas River watershed because the water resources are used by humans and ecological receptors.

**1.3      Scope and Strategy of the Review and Evaluation of Existing Environmental Data**

EPA committed in the 1990's to not pursue a NPL designation for the Upper Animas River, as long as the community based collaborative approach was making progress as demonstrated by water quality improvements in the Animas River. Despite the combined efforts of the Animas River Stakeholder Group (ARSG), BLM, the State and other stakeholders to address the water quality in the UA, sampling results in the Animas River since 2004 have shown an overall decline in water quality. As a result of this water quality trend, EPA considered several approaches and chose to prepare a targeted NPL designation for the Upper Cement Creek area. As EPA was finalizing a package for this proposed targeted listing in 2011, Sunnyside Gold Corporation (SGC), the local government, and ARSG vigorously opposed this proposal, and EPA agreed not to pursue this effort at that time.

Ongoing sampling shows that the water quality in Cement Creek and in the Animas River downstream of Silverton has not improved. In fact, there has been a decline in water quality and aquatic communities observed in the Animas River since water treatment ceased in Upper Cement Creek around 2004. The decline has occurred in spite of numerous voluntary localized efforts to lessen metals loading to the watershed from point and non-point sources, as well as larger-scale efforts conducted by mining companies and land management agencies.

During the past two decades there have been numerous studies and investigations of the geology, mineralogy, water quality, sediments and aquatic environment conducted by Federal, State and Local Governmental agencies, mining industry and private interest groups. Data has been collected for various purposes and under differing quality assurance requirements.

## **Section 2 Purpose and Scope**

### **2.1 Purpose**

The purpose of this SOW is to obtain assistance from the U. S Army Corps of Engineers (USACE) to prepare a QAPP to review and organize existing environmental data as the first step towards a “remedial-like” investigation. This SOW will also include the actual review and organization of the data in a database and an annotated report of the various data sets as to their data usability. A site-specific IA will be funded for the preparation of work plans, QAPP and SAPs for a “remedial-like” investigation.

EPA 8 requires an experienced A&E environmental contractor with extensive experience in the characterization and remediation of mining sites and watersheds as well as the CERCLA process. A wide range of technical skills are needed including geology, water chemistry, mine operations and risk assessment as well as remediation methods including passive water treatment technologies and experience in performing PRP oversight.

### **2.2 Scope of Work To Be Performed**

Services to be performed under this IA may include, but are not limited to:

A Quality Management Plan and a Quality Assurance Project Plan (QAPP) must be developed for the environmental data review and organization planned for this IA. EPA Requirements for Quality Management Plans (QA/R-2) (EPA 2001) can be found at <http://www.epa.gov/QUALITY/qs-docs/r2-final.pdf>. EPA Requirements for QA Project Plans (QA/R-5) (EPA 2001) can be found at <http://www.epa.gov/QUALITY/qs-docs/r5-final.pdf>. The EPA Quality Assurance Officer or the Delegated Approval Official must approve the quality documents in writing before measurement activities are undertaken.

It is anticipated that USACE will prepare a letter to amend the existing USACE Quality Management Plan (QMP) for EPA Region 8 Superfund Program (draft dated June 2013) to incorporate this work assignment under the QMP. USACE shall provide Project Management and QA of environmental data under this IA.

The scope of the data review and organization will include Mineral Creek, Cement Creek and the Animas River above USGS gaging station A-72 (see enclosed map) in San Juan County. Data from studies and investigations from the last 25-30 years is the primary focus of this SOW. In some instances, studies or data prior to that may be relevant.

**2.2.1 Task 1 – Preparation of QAPP.** USACE and their contractor shall prepare a quality assurance project plan (QAPP) for the review and organization of existing environmental data and submit the draft QAPP along with the EPA crosswalk form for EPA review and approval.

**2.2.2 Task 2 - Data Search.** Upon approval of the QAPP, USACE and their contractor shall perform a comprehensive review of environmental data collected for the Upper Animas River watershed. The sources of existing environmental data include but are not limited to the following:

- USGS Professional Paper 1651 – “Integrated Investigations of Environmental Effects of Historical Mining in the Animas River Watershed, San Juan County, Colorado.” 2007
- “Use Attainability Analysis” – Animas River Stakeholders Group for the Colorado Water Quality Control Commission.
- ARSG Section 319 sampling and reports
- Other USGS studies and investigations of Animas River watershed
- Various USEPA Sampling Projects – data is housed in SCRIBE & Storet
- On-going USEPA SW sampling for the Aquatic Ecological Risk Assessment
- USEPA data collected for Site Assessment & HRS
- Environmental Data collected by BLM
- Data and Information Collected by Colorado Department of Minerals, Reclamation and Safety (formerly known as Colorado Department of Mining and Geology)
- Colorado Division of Game & Fish
- Sunnyside Gold Company WQ data reports to Colorado Water Quality Control Division

**2.2.3 Task 3 – Organize Data.** USACE and their contractor shall organize and prepare an annotated report on the data usability of all data sets reviewed. Because of the extensive amount of data collected by numerous organizations, an identification and review of the existing data is essential prior to attempting to scope a “remedial-like” investigation to understand what data exists and what is already known and the usability of the data either for EPA decision-making, as supporting documentation or as a “weight of evidence” criteria. The organization of the data into an easily accessible database will need to be discussed with EPA and USACE/contractor.

**2.2.4. Task 4 -** These tasks may be further subdivided into discreet areas in order to manage the work if necessary. A site specific follow-on IA for the planning and performance of a “remedial-like” investigation will be funded following the completion of the work in this IA.